

# Christopher R. Culpepper

CRC3510@RIT.EDU  
(413) 376-5034

www.coroflot.com/cculpepper  
www.github.com/cculpepper

**CAREER OBJECTIVE** To start a career in the field of Systems or Computer Engineering starting in May 2017 designing electronic hardware, Systems Engineering, or creating embedded software.

**EXPERIENCE** *Test Engineer Co-op* *January 2016 - May 2016*

Space Exploration Technologies, Hawthorne CA

- Created software to automate the creation of trouble reports
- Developed tests to test flight avionics hardware
- Troubleshoot issues with avionics test racks

*Systems Engineering Co-op*

*July 2013 - Present*

General Dynamics Mission Systems, Pittsfield MA

- Performed software and systems testing on weapon control software
- Managed requirements and test cases
- Developed automated testing tracker that was used to status testing progress to management

*Computer Engineering Lab Teaching Assistant*

*January 2015 - Present*

Computer Engineering Department, RIT, Rochester, NY

- Responsible for grading student reports and assisting students with ARM assembly language
- Mentored new Computer Engineers in order to increase retention and create better engineers.

**PROJECTS** *High Altitude Balloon Telemetry Tracker*

- Personally developed hardware and software design and implementation
- Developing radio board to have the ability to use FSK, AFSK, or audio-based protocols
- Utilized multiple PCBs in order to separate functionality and increase reusability
- Can communicate GPS and other sensor data to the Amateur Radio APRS network

*Wideband Oxygen Sensor Controller*

- Designed, built and programmed sensor controller that measured oxygen concentration
- Incorporated PID loops to keep a sensor at a constant temperature and oxygen concentration
- Could have been calibrated to measure accurate oxygen concentrations

*Assembly Language Pong Game*

- Created a 1.5D Pong game for a school project in HCS12 assembly
- Required HCS12 assembly, PWM, ADC and digital output

*Radio-Internet Hotspot Transceiver (Multidisciplinary Senior Design)*

- Worked on a multidisciplinary group consisting of 3 EEs
- Device acts as an audio bridge between RF and the Allstar radio network
- Completing entire design process from customer requirements to prototyping and handoff.

**AWARDS & SKILLS**

Eagle Scout

A+ Certified

Languages & Software:

C

Python

Microsoft Office

Kicad PCB Design Software

Visual Basic for Applications (VBA)

ARM & HCS12 Assembly

DOORs

L<sup>A</sup>T<sub>E</sub>X

**EDUCATION** *Bachelor of Science, Computer Engineering GPA: 3.03*

Rochester Institute of Technology, Rochester NY, Expected May 2017

Applied Programming

Interface and Digital Electronics

Data Communication and Networks

Introduction to Software Engineering

Assembly Language Programming

Multidisciplinary Senior Design

Electronics I&II

Digital IC Design

**COMMUNITY SERVICE** *Assistant Scoutmaster at Boy Scout Troop 88, North Adams, MA*

- Mentored Scouts to achieve rank and acquire valuable life skills
- Assisted with multiple community service projects

*Radio communication at multiple road rallies*

- Operated in a high-stress environment to prevent accidents and mistakes
- Responsible for maintaining communication for racing stages and to central management
- Relayed pertinent information to competitors, stage captain and race officials

**PERSONAL INTERESTS AND HOBBIES**

Amateur Radio Extra

Motorcycle and Automobile repair

Camping and hiking

Member of the K2GXT RIT Amateur Radio Club